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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
SANDERS, KRIELLION ANTIONETTE	

ART UNIT	PAPER NUMBER
1796	

NOTIFICATION DATE	DELIVERY MODE
01/04/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/526,435

Applicant(s)

SCHERER ET AL.

Examiner

Kriellion A. Sanders

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3/05, 3/07</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 3 and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "obtainable by" does not serve to clearly point out the reactants used to prepare the dispersing component.

3. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 4 recites the broad recitation "an alkyl radical having from 1-30, and the claim also recites preferably from 1-6, which is the narrower statement of the range/limitation.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-20 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1- 9 of copending Application No.

10/525,529, hereinafter '529. Although the conflicting claims are not identical, they are not patentably distinct from each other because '529 claims a polymer dispersion including at least one dispersed polyolefin and at least one dispersing compound,

3. Claims 8 and 9 of the subject application specify that the carrier material is an ethoxylated alcohol which corresponds to component D of applicant's claims. Component C of '529 is an ester and mineral oils are esters. Therefore, the component C mineral oil of applicant's claims is met by the component c ester of '529. The dispersing component of applicant's claim 2 corresponds to the (meth)acrylate of the '529 claim 4. Corresponding

weight ratios are set forth in claim 6. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

4. Claims 1-20 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 21-41 of U.S. Patent No. 7250458. Although the conflicting claims are not identical, they are not patentably distinct from each other because the patent indicates that ethoxylated alcohol may be used in the polymer dispersions. The patented invention claims a polymer dispersion including at least one dispersed polyolefin and at least one dispersing compound. Component C of '942 is an ester and mineral oils are esters. Therefore, the component C mineral oil of applicant's claims is met by the component c ester of the patented invention. Component D of both application and patented invention are essentially the same oligooxyalkyl compounds.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-8 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takigawa et al., US Patent No. 5,026,496 and further in view of Lange, US Patent No. 4,839,068.

Applicant's invention pertains to a stable polymer dispersion comprising:

A) At least one dispersed polyolefin

B) A dispersing component which may be a block copolymer comprising one or more of each of blocks A and X.

C) At least one ester

D) At least one ether compound comprising (oligo)oxyalkyl groups and which may comprise an ethoxylated alcohol.

E) A compound having a dielectric constant greater than or equal to 9, which may be selected from water, ethylene glycol, polyethylene glycol and alcohol.

Applicant's invention may be used to formulate lubricating oils.

Takigawa et al discloses a polymer composition or concentrate comprising: (A) an olefinic copolymer, (B) a copolymer of an olefin with a (meth)acrylate, (C) a poly(meth)acrylate, and (D) a surfactant, which is a solvent for both components (A) and (C), and which acts as a solubilizer or phase-stabilizer for components (A) and (C). The compositions are useful as an additive for a lubricating oil.

Suitable olefinic copolymers generally include copolymers of two or more olefins such as ethylene, propylene, butylene, iso-butylene, isoprene, butadiene and the like, as well as copolymers of these olefins with other monomers such as styrene, cyclopentadiene, dicyclopentadiene, ethylidene-norbornene and so on.

Suitable copolymers of olefins with a (meth)acrylate, as the component (B) in the present composition, include graft-copolymers obtained by grafting a (meth)acrylate under radical polymerization conditions onto an olefinic copolymer, random copolymers obtained by random-copolymerizing olefins with a (meth)acrylate, and block-copolymers obtained by anionic polymerization.

Poly(meth)acrylates, used as the component (C) in the invention, include (co)polymers obtainable from (meth)acrylates or combinations thereof with other monomers.

Surfactants, which are poor solvents for both components (A) and (C) which act as a solubilizer or phase-stabilizer for components (A) and (C) in combination with surface activity component (B), which exhibits surface activity, as a phase-stabilizer, used as component (D) in the invention, include oxyalkylated active hydrogen atom-containing compounds and mixtures of two or more of such compounds. Suitable surfactants include, for example, alkylene oxide adducts of compounds containing one or more active hydrogen atom-containing groups such as hydroxyl, amino and amide groups. The total polymer content, i.e., the total amount of (A), (B) and (C), is generally 30-60%, preferably 35-50%, based on the weight of the composition. The content of component (B) is at least 5%, preferably 10% -40%, based on the total weight of the polymer [(A)+(B)+(C)]. The content of the component (A) is preferably 10%-60%, more preferably 20%-50%; and the content of the component (C) is preferably 25%-80%, more preferably 30%-60%, based on the total weight of the polymer. The content of component (D) is usually 2-70%, preferably 2-35%, more preferably 5-20%, based on the weight of the composition. Polymer compositions according to the invention may further contain a mineral oil as component (E). Suitable mineral oils include those usually used as base oils for engine oils, for example, 60 neutral, 100 neutral, 150 neutral and 500 neutral oils, and mixtures of two or more of the oils. The total content of (D) and (E) in the composition is generally 40-70%, preferably 50-65%, based on the weight of the composition. The weight ratio of (E)/(D) generally ranges from 0/100-95/5, preferably 50/50-95/5, more preferably 70/30-90/10.

In producing polymer compositions comprising components (A), (B), (C) and (D)

according to the invention, (D) may be added with stirring to polymerized products at any temperature between room temperature and the polymerization temperature, usually 80-130.degree. C., the products having been prepared by polymerizing (meth)acrylates, and optionally other monomers, in situ in (A) dissolved in (E). A portion usually 50% or less, of (D) may be added to (E) before polymerization, followed by conducting polymerization and then adding the remainder of (D). Mixing may be performed using stirrers, which impart a high mechanical shear to material such as a homomixer. See col. 1, line 60 through col. 6, line 61.

Lange discloses additives for lubricants, which provide improved frictional characteristics and which, when used in lubricating oils, provide fuel economy improving benefits and which improve the viscosity characteristics of lubricating oils. The additives comprises polysuccinate esters prepared by the condensation reaction of a suitable polyhydric *alcohol* with the substituted succinic acids or anhydrides described, above.

The polyhydric alcohols useful in the preparation of the polysuccinate esters may contain up to about 8 hydroxyl groups, and may be linear or branched. Preferred polyhydric alcohols are *ethylene glycol*, neopentylene glycol, glycerol and pentaerythritol. Mixtures of polyhydric alcohols may be used. The polyhydric alcohols used in the preparation of the polysuccinate esters of this invention also may include polyethers or partial fatty acid esters of polyols. Useful polyethers include polyhydroxy polyalkoxy alkanes, such as diethylene glycol. Useful partial fatty acid esters will contain at least two hydroxyl groups. Glycerol monooleate is illustrative.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the polyhydric alcohols of Lange into the lubricant additives of

Takigawa et al to formulate succinate esters and to derive improved frictional characteristics, fuel economy benefits and improved viscosity characteristics, absent a clear showing of unexpected results attributable to the use of the alcohol components. Likewise, it would have been obvious to one of ordinary skill in the art to incorporate diethylene glycol of Lange into the lubricant additives of Takigawa et al, to provide additional lubricating properties, absent a clear showing of unexpected results attributable to the use of the alcohol components.

Claims 9-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kriellion A. Sanders whose telephone number is 571-272-1122. The examiner can normally be reached on Monday through Thursday 8:30am-7:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Kriellion A. Sanders
Primary Examiner
Art Unit 1796

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